

Medicine Lake National Wildlife Refuge
Medicine Lake, Montana
December 27, 1955

1956
WATER MANAGEMENT PLAN

Water conditions were fairly favorable during 1955, except for a rather dry fall season. Predipitation from January 1 to this date has totalled 16.95 inches, and little more can be expected for the remaining few days of the year. Calendar year 1954 showed a total of 18.28 inches and 1953, the record year, showed 19.08 inches.

A heavy run-off came in the spring of 1955 and light rains through the summer kept all impoundments close to the full mark until the first part of September. During the fall months, it was necessary to lower Medicine Lake appreciably to maintain a desirable level in the Homestead Unit impoundments, and offset the heavy evaporation.

Refuge water levels at freezeup time in November were as follows:

<u>Impoundment</u>	<u>Spill Level</u>	<u>1955 Appr. Level.</u>	<u>November Level.</u>
Katy's Lake	No spillway	1953.00	1952.00
No. 4 (Medicine Lake)	1943.02	1943.00	1940.80
No. 6 (Homestead)	1937.85	1937.85	1936.30
No. 10	1945.00	1945.00	1943.39
No. 11	1952.54	1952.54	1951.58
No. 12	1955.93	1954.00	1953.36

Water conditions and levels were only moderately favorable for aquatic waterfowl food plants, in 1955. Sago pondweed showed a noticeable decrease in growth. We are reluctant to attribute this poor showing to water or climatic conditions and incline more toward a belief that the large carp population may be responsible. Large numbers of these voracious feeders were observed many times tearing up patches of sago and the turbidity of the water was also greatly increased by the carp.

It is believed that a continuation of the same water levels for 1956 as approved for 1955 will provide the most favorable conditions for both waterfowl and aquatic growths. The practice of maintaining the Homestead Unit impoundments at a desirable level by releasing water from Medicine Lake as needed seems to work out very satisfactorily and it is proposed to follow that plan again in 1956. The proposed levels are shown below.

<u>Impoundment</u>	<u>Spill Level</u>	<u>Proposed Max. Level for 1956</u>
Katy's Lake	No Spillway	1953.00
No. 4 (Medicine Lake)	1943.02	1943.00
No. 6 (Homestead)	1937.85	1937.85

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CONTINUED

<u>Impoundment</u>	<u>Spill Level</u>	<u>Proposed Max. Level for 1956</u>
No. 10	1945.00	1945.00
No. 11	1952.54	1952.54
No. 12	1955.93	1954.00

So far, the snowfall has been very light this winter, with practically no accumulation to create spring run-off, but it is too early to hazard any guesses as to the amount of water we may be called upon to handle. A report will be submitted in the spring to show conditions at that time.

Elmo G. Adams
Refuge Manager